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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,767	01/18/2002	Kelvin Chong	2102299-991120	5568
29906	7590	09/12/2005	EXAMINER	
INGRASSIA FISHER & LORENZ, P.C. 7150 E. CAMELBACK, STE. 325 SCOTTSDALE, AZ 85251			STEELMAN, MARY J	
			ART UNIT	PAPER NUMBER
			2191	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,767

Applicant(s)

CHONG ET AL.

Examiner

Mary J. Steelman

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Copy of accepted drawings.

DETAILED ACTION

1. This Office Action is in response to Amendments, Remarks, and Drawings received 7/11/2005. Per Applicant's request, Claims 4, 13, 18, 20, and 21 are amended. Claims 4-23 are pending.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: The oath references 1.56(a). It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56. In the oath, delete the '(a)'.

Per Applicant's statement, 7/7/2005, a new oath will be submitted once inventors can be contacted.

Drawings

3. Replacement Sheet Drawings for Figures 1-41 are accepted by Examiner. Prior objections are hereby withdrawn.

Claim Objections

4. In view of amendments to claims 18 and 21, the prior claim objections are hereby withdrawn.

Response to Arguments

5. Applicant has argued, in substance, the following:

Art Unit: 2191

(A) Regarding independent claim 4, as noted on page 10, 3rd paragraph of Remarks, Hanson fails to disclose 'executing a multi channel application capable of operating over a plurality of channels in a multi channel system.'

Examiner's Response: These are newly added limitations and are addressed more specifically with new art, US Patent Application Publication 2002/0138617 A1 to Christfort.

Additionally, in response to applicant's arguments, the recitation 'executing a multi channel application capable of operating over a plurality of channels in a multi channel system' has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

(B) Regarding independent claim 4, as noted on page 10, 4th paragraph of Remarks, Hanson reference does not use the term 'channel' as it is used in the present application which defines a channel as the medium over which interaction takes place.

Art Unit: 2191

Examiner's Response: In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., channel) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Hanson disclosed that various users, (col. 7, line 49 – col. 8, line 48) with various devices (Mobile End Systems), may connect using a plurality of communication protocols to a Mobility Management Server (a multi channel application capable of operating over a plurality of channels). The Mobility Management Server handles the complex session management. US Patent Application Publication 2002/0138617 A1 to Christfort provides more specific details related to an application that supports different client devices, for which interaction takes place over different 'channels'. New art has been applied to the newly added limitations.

(C) As noted on page 11, 2nd paragraph of Remarks, Applicant has argued that there is no motivation to combine references and hindsight reasoning was improperly used.

Examiner's Response: Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a

Art Unit: 2191

sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(D) Regarding dependent claim 11, as noted on page 11, 3rd paragraph of Remarks, Applicant argues prior art references fail to disclose 'translating application templates to specific markup languages associated with the device types' and 'communicating the translated application templates to the subscriber devices.'

Examiner's Response: See rejection of claim 11 below. As an example, Christfort explicitly discloses 'translating application templates to specific markup languages associated with the device types' at [0097 – 0099] and [0124]. Style sheets are modified with appropriate versions of markup language, suitable for displaying on a specific client device.

(E) As noted on page 11, 4th paragraph, Applicant has argued independent claims 13 and 20 and their respective dependent claims are patentable over cited references.

Examiner's Response: Examiner respectfully points out that Applicant has not presented any specific arguments. Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the

Art Unit: 2191

references applied against the claims, explaining how the claims avoid the references or distinguish from them. Additionally, new art is presented to reject limitations.

Applicant's arguments with respect to claims 4-23 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 4-7, 10-16, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication 2002/0138617 A1 to Christfort et al.

Per claim 4:

A method for executing a multi-channel application capable of operating over a plurality of channels in a multi-channel system having a plurality of subscribers, said method comprising the steps of:

Christfort disclosed [0095] end users (subscribers) connecting over a plurality of channels (Internet, DSL, dial up, cable, ISDN, wirelessly, etc.) to an application that can handle responses

Art Unit: 2191

to various types of client devices. [0127] Output is formatted according to the needs of the client (subscriber).

-identifying each subscriber with a unique identifier which is independent of a subscriber device running said multi-channel application;

As an example, Christfort disclosed identifying each subscriber at [0185] & [0192], independently of identification of ([0101] discloses 'conditions, parameters, and characteristics' associated with a service request) type of client, device type, etc.

-presenting each subscriber with a personalized interface;

Christfort disclosed presenting customized output (personalized interface) to an end user (subscriber) at [0071] on the client device.

-journaling transactions and memory objects during interaction with a subscriber such that upon the subscriber being disconnected during a session the subscriber is uniquely identified upon reconnection to the multi-channel application;

Christfort disclosed [0181] that state information is stored (journaling transactions) at an intermediary. Until the end user selects 'done' or exit' callback information is stored in a record (if disconnected during a session the information remains stored on the stack). Regarding the unique identification see [0185]- end user (subscriber) and [0119]-device type. See [0191] regarding allowing an end user to return to a previous selection.

Art Unit: 2191

Regarding the limitation:

-presenting to the subscriber an option to continue execution of the multi-channel application from a previous point of execution prior to the subscriber being disconnected.

Christfort disclosed at [0191] the ability to return to a previous service (continue execution from a previous point), prior to selecting a 'done or exit' control (prior to disconnecting).

Per claim 5:

-storing threads of execution of a subscriber during execution of an application;

Christfort disclosed [0180] maintaining state information for a user (subscriber) by storing stack information (storing threads of execution).

-recalling said stored threads of execution upon a subscriber reconnecting to the application following the subscriber being disconnected.

Christfort disclosed [0181] that a called module identifies a previously accessed service based on information stored in a stack. A user may return to a previous selection (recall stored threads) prior to a selection of 'done' or 'exit', which ends a session.

Per claim 6:

-the threads of execution are stored within a session, which is associated with a unique identifier.

Christfort disclosed [0180-0182] storing threads on a stack during a session. As an example of storing a unique identifier see [0185] where a user name is mapped to the session.

Art Unit: 2191

Per claim 7:

-the step of presenting to the subscriber an option to begin a new transaction.

Christfort disclosed [0096] presenting an end user with available services (option to begin a new transaction) at login. End user may select an application (option to begin a new transaction) associated with a service. [0067]- End user sends a request to host server to start a new session / handle a request.

Per claim 10:

-detecting device types associated with subscriber devices;

Christfort disclosed detecting device types associated with subscriber device at [0138] where 'middleware transformer' determines the device type of the client to which the output is to be sent.

-presenting content to the subscribers that is optimized for the associated subscriber devices.

Christfort disclosed: [0067]-Resulting output (content) is presented to end user (subscriber). [0071]-Output is customized (optimized) based on parameters / conditions (related to detection of subscriber device) associated with a service request.

Per claim 11:

-translating application templates to specific markup languages associated with the device types;

As an example, Christfort disclosed [0121 – 0126] that specific markup languages associated with device types can be provided as options for application output. As an example, Christfort

Art Unit: 2191

disclosed [0126] an XSL style sheet (application template) may be applied to format the output according to the client device.

-communicating the translated application templates to the subscriber devices.

Christfort disclosed [0071] the customized output is presented to the end user (subscriber).

As noted above, style sheets (templates) may use markup languages associated with the end users specific devices.

Per claim 12:

-the device types are selected from the group consisting of internet-enabled desktop systems, wireless cellular telephones, smart telephones, PDAs mobile computers, pagers, laptops, and voice phones.

As an example, Christfort disclosed [0066] desktop computers connected through the Internet, PDAs connected via cellular modem connections, a mobile phone (wireless cellular telephone) connected via a WAP-to-HTTP gateway. Christfort disclosed a phone [0116]. See [0123 - 0124] regarding specific code nodes corresponding to various types of devices. [0120]- WAP pone (smart phone), [0160] – pager, [0163]-laptop. Christfort disclosed [0021] that it is desirable to provide improved techniques for designing applications that more effectively work with all devices and new devices as they are invented [0159].

Per claim 13:

Art Unit: 2191

A system for running multi-channel applications capable of operating over a plurality of channels comprising:

Christfort disclosed [0095] end users (subscribers) connecting over a plurality of channels (Internet, DSL, dial up, cable, ISDN, wirelessly, etc.) to an application that can handle responses to various types of client devices. [0127] Output is formatted according to the needs of the client (subscriber). See system at FIG. 1A.

-an application manager that is adapted to run multi-channel applications capable of operating over a plurality of channels, to receive requests from clients to access the multi-channel applications, and to execute the multi-channel applications in response to the requests;

Christfort disclosed [0067] a hosted application located on a host server (application manager), #110, which provides output in response to a request from an end user, #130. The application is multi-channel and executes multi-channel applications (handles communications over various connections from various client devices) as noted in [0066].

-a presentation manager that is adapted to detect device types associated with client requests, and to generate output to the clients that is formatted for the detected device types.

(Also see rejection of limitations in claim 10 above.)

Per claim 14:

-a device detection subsystem that is adapted to detect device types based on parameters of client requests;

Art Unit: 2191

Christfort disclosed 'request-conditions' detected at the time a service request from an end user, handled by the host server. Request conditions include information about the type of client, device type, etc.

-a view executor that is adapted to generate content optimized for the detected device types.

As an example, Christfort disclosed [0076] generic output received at the hose is customized for the mobile phone (detected device type) by a 'middleware transformer'. See FIG. 1B, #112, middleware transformer. Middleware transformer generates content optimized for the detected device type.

Per claim 15:

-the device types are selected from the group consisting of internet-enabled desktop systems, wireless cellular telephones, smart telephones, PDAs, mobile computers, pagers, laptops, and voice phones.

(See rejection of limitations as noted in claim 12 above.)

Per claim 16:

-at least one session data object, which is maintained by the system, and which is used by the system to store client transactions during execution of an application,

Christfort disclosed [0076] a service linker, #114 for storing sessions. Additional details related to storing sessions are at [0180-182]. 'Session data objects' are inherent, as Christfort discusses 'middleware' transformations which refer to 'object' environments.

-and to recall said client transactions upon a subscriber reconnecting to the application following the subscriber being disconnected.

(See rejection of limitations as noted in claim 5 above.)

Per claim 20:

A system for developing, running and analyzing multi-channel applications capable of operating over a plurality of channels, comprising:

Christfort disclosed a system for developing (creation), running (deployment), and analyzing multi-channel applications capable of operating over a plurality of channels (at [0059-0060] using an online software development kit. [0073-0074], Modified output is presented to an end user to best match the device capabilities.

-a development module which is adapted to allow a developer to visually design a multi-channel application capable of operating over a plurality of channels;

Christfort disclosed a development kit at [0080]. A developer creates an application using the user interface via the developer's browser (visually designs). The application is a multi-channel application capable of operating over a plurality of channels, as alternate output segments are included [0089], to customize the presentation according to a client device. As an example, [0095] users may access the application via a computer over the Internet, using a dial-up line, a DSL connection, a cable modem an ISDN connection (capable of operating over a plurality of

Art Unit: 2191

channels). A WAP phone may connect wirelessly using WAP-to HTTP gateway, or SMTP or SMS.

-a runtime system which is adapted to operate the multi-channel application capable of operating over a plurality of channels;

Christfort disclosed such a runtime system at [0095].

-a data mining module which is communicatively coupled to the runtime system and which is adapted to monitor client usage of the runtime system.

As an example, Christfort disclosed 'data mining' at [0078] where tracking (data mining / monitor client usage) between services facilitates billing.

Per claim 21:

-the data mining module is adapted to determine all paths traversed by clients within the multi-channel application and to generate reports based on client usage of the runtime system.

As an example, Christfort disclosed 'data mining' at [0078] where tracking (data mining / monitor client usage) between services facilitates billing (generates reports). A module / service may call / link to a second module / service and may 'call back' (determine paths traversed by clients) to the first module. As another example see [0178] which discloses an intermediary storing information related to business relationships for the purpose of calculating pay (generating reports) owed to the designer.

Art Unit: 2191

Per claim 22:

-a first module adapted to allow a developer to visually design workflow for a multi-channel application;

As an example, Christfort disclosed a visual design workflow module at [0080].

-a second module adapted to allow a developer to design views for the multi-channel application;

As an example, Christfort disclosed the development website may show views [0085] such as: requiring a name and password, listing / choices of mobile applications, access to other services.

-a third module adapted to allow a developer to integrate data sources within the multi-channel application.

As an example, Christfort disclosed [0077] the application may incorporate features and output of other applications (integrate data sources), such as a map service linked to a weather application.

Per claim 23:

-an application manager that is adapted to run multi-channel applications, to receive requests from clients to access the applications, and to execute the applications in response to the requests;

As an example, Christfort disclosed (FIG. 1A) a host server (application manager), #110 [0066-0071]. [0067], "in response to the request (receive requests from clients to access applications) from user 120, host server 110 may then execute (execute in response to the requests) the

Art Unit: 2191

appropriate hosted application and send the resulting output to end user.” See [0066] & [0095] as related to ‘multi-channel applications’. The application may communicate with various devices using various channels of communications.

-a presentation manager that is adapted to detect device types associated with client requests, and to generate output to the clients that is formatted for the detected device types.

As an example, Christfort disclosed [0101 - 0103] a middleware transformer associated with the host receives ‘conditions and parameters’, as related to the client device type, and uses the information to transform (generate / formatted) output to be specific for the client device. See FIG. 4 and related text at [0163-0168].

Claim Rejections - 35 USC § 103

8. Claims 8, 9, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication 2002/0138617 A1 to Christfort et al., in view of US Patent 6,546,425 B1 to Hanson et al.

Per claim 8:

-receiving subscriber requests;

Christfort disclosed [0067] receiving a request from an end user, #130 (subscriber) by the host server, #110. See FIG. 1A.

Christfort failed to disclose details related to:

Art Unit: 2191

- detecting subscriber requests that are out of sequence;
- providing appropriate responses to subscriber requests that are out of sequence.

However Hanson disclosed:

Hanson: Col. 4, lines 3-7, “enables Mobile End Systems to communicate with Fixed End Systems using continuous session type data streams even though Mobile End Systems sometimes lose contact with their associated network interconnect...”, col. 13, lines 31-33, “The Internet Mobility Protocol engine performs reliable datagram services, sequencing, fragmentation, and re-assembly of messages...”, col. 14, lines 5-7, “Once the frame is received by the Mobility Management Server the Internet Mobility Protocol engine reconstructs the frame if fragmented...”

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify Christfort, to include details related to detecting and handling sequencing errors as disclosed by Hanson because correct sequencing of communication packets is a well known part of handling network communications, necessary for reliable transmissions.

Christfort had already suggested various communication / transmission types [0164] (correct sequencing of requests) are handled by a server, FIG. 4, #442. Hanson disclosed (col. 2, lines 41-44) the need to enable network application to run reliably.

Per claim 9:

Christfort failed to disclose:

Art Unit: 2191

-tracking the sequence number of each request by use of a counter variable.

However Hanson provided details:

Hanson: Col. 13, lines 31-33, "The Internet Mobility Protocol engine performs reliable datagram services, sequencing, fragmentation, and re-assembly of messages...", col. 14, lines 5-7, "Once the frame is received by the Mobility Management Server the Internet Mobility Protocol engine reconstructs the frame if fragmented...", col. 21, line 42, "Sequence numbers are used to insure ordered delivery of data..."

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify Christfort, to include details related to detecting and handling sequencing errors as disclosed by Hanson because correct sequencing of communication packets is a well known part of handling network communications, necessary for reliable transmissions.

Christfort had already suggested various communication / transmission types [0164] (correct sequencing of requests) are handled by a server, FIG. 4, #442. Hanson disclosed (col. 2, lines 41-44) the need to enable network application to run reliably.

Per claim 17:

-means for managing out of sequence client requests.

(See rejection of limitations as noted in claim 8 above.)

Per claim 18:

Art Unit: 2191

-the means for managing out of sequence client requests is adapted to receive client requests, detect client requests that are out of sequence, and provide appropriate responses to out of sequence client requests.

(See rejection of limitations as noted in claim 8 above.)

Per claim 19:

-means for determining whether a client request for a state in an application must be authorized. Christfort disclosed [0085] that an application may be controlled by requiring a name and password.

Conclusion

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2191

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

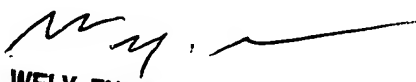
Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman



08/31/2005



WEI Y. ZHEN
PRIMARY EXAMINER

Accepted by Examiner, M. & S. 31-05

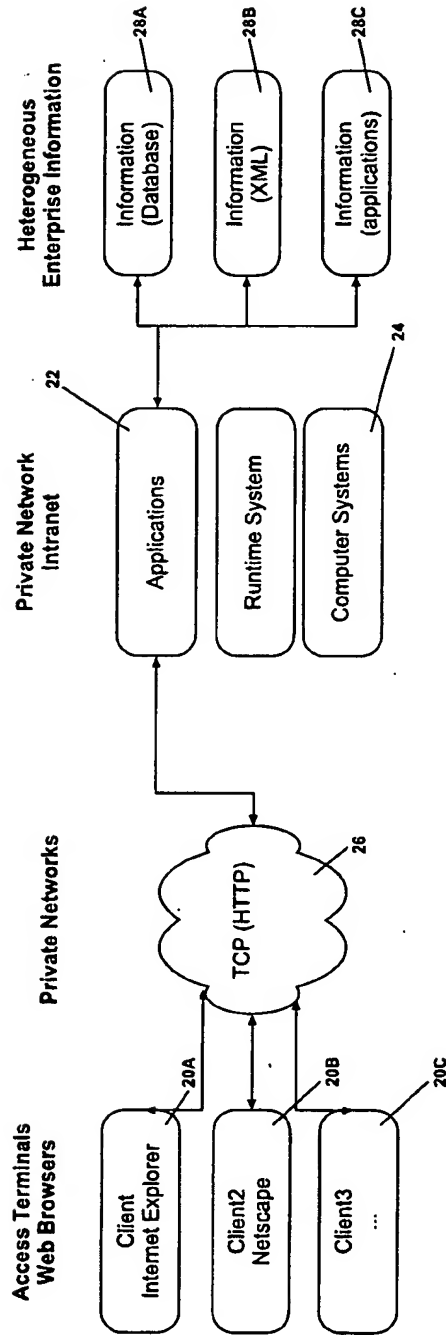


Figure 1

Accepted by Exam 8/31/05 Md.

2/41

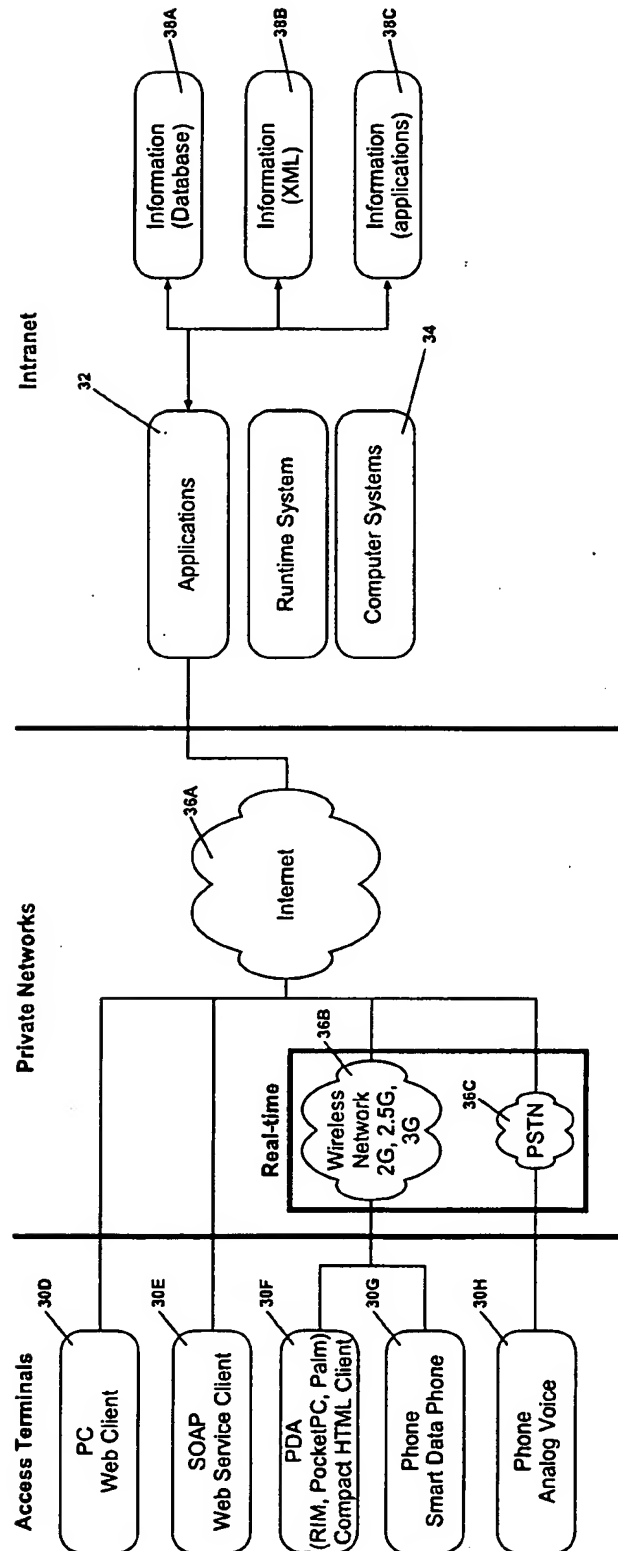


Figure 2

Accepted by Examiner MS 8.31.05

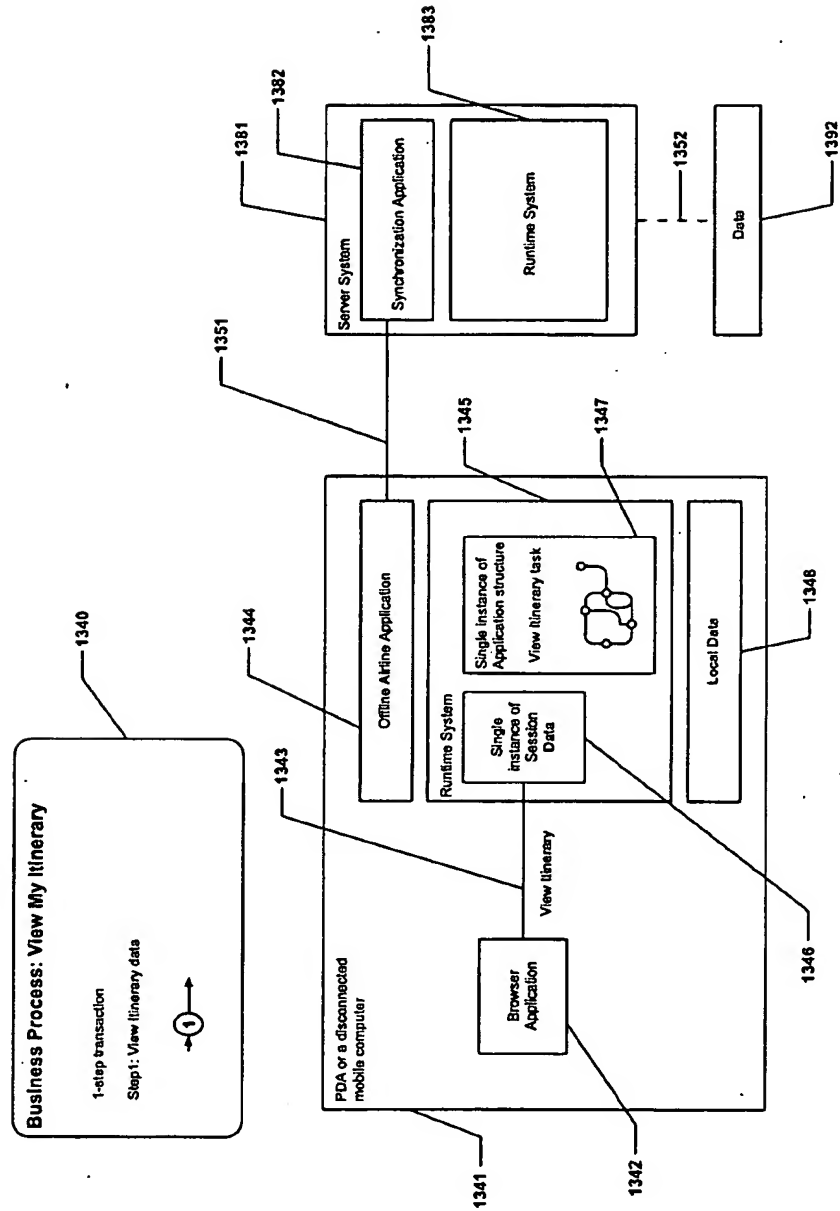


Figure 15

26/41

Use previously stored information for reconnect

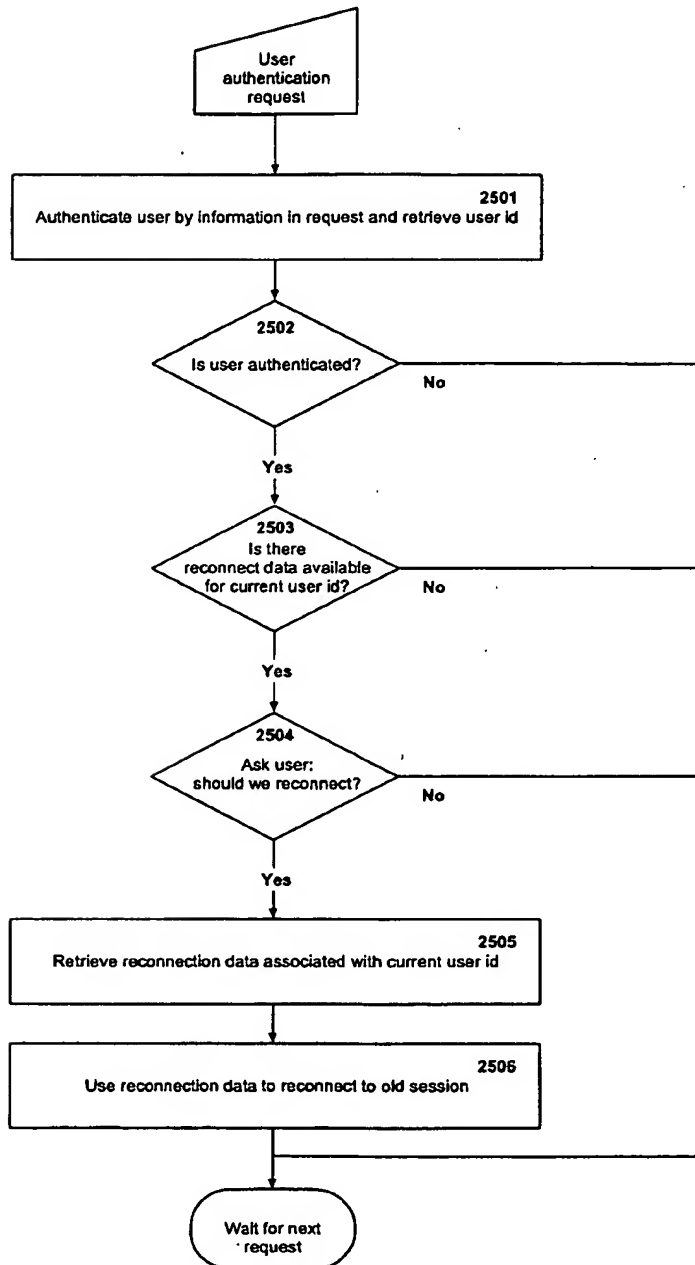


Figure 26

Accepted by Examiner MA 8.31.05

29/41

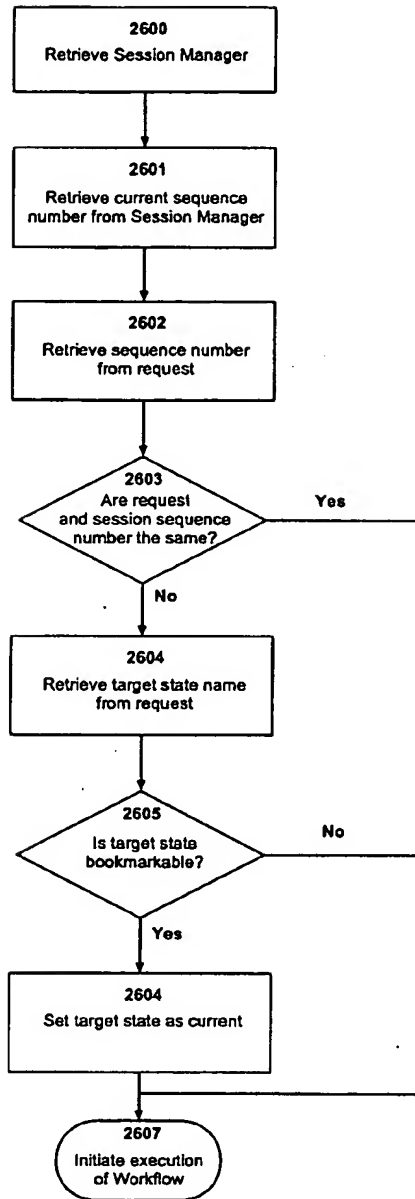


Figure 29

33/41

State Transition needs to be
performed

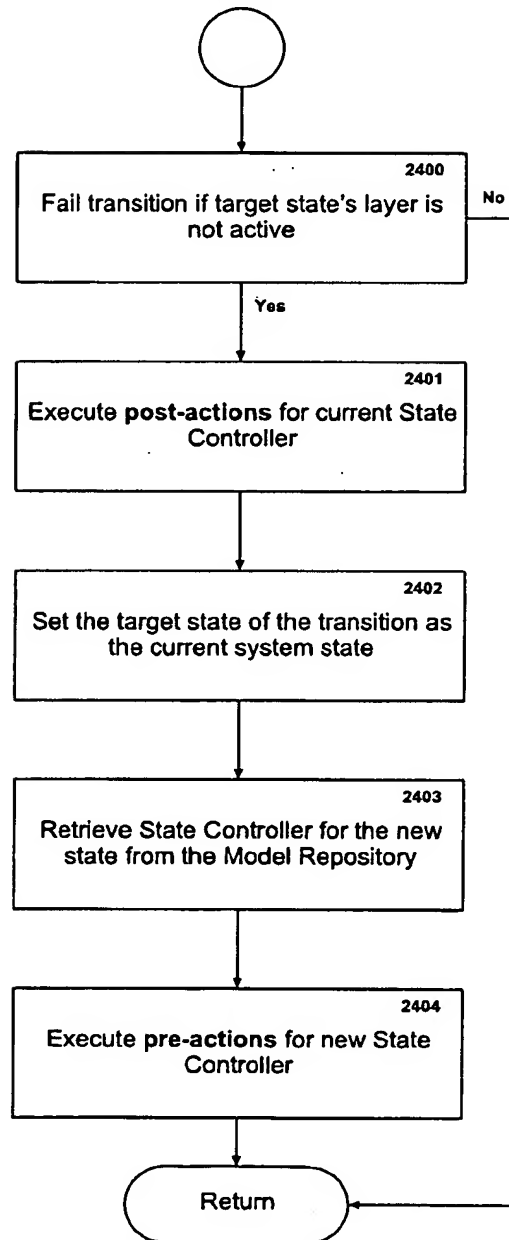


Figure 33

Accepted by Examiner 04/08/05

34/41

Accepted by Extension 8.31.03

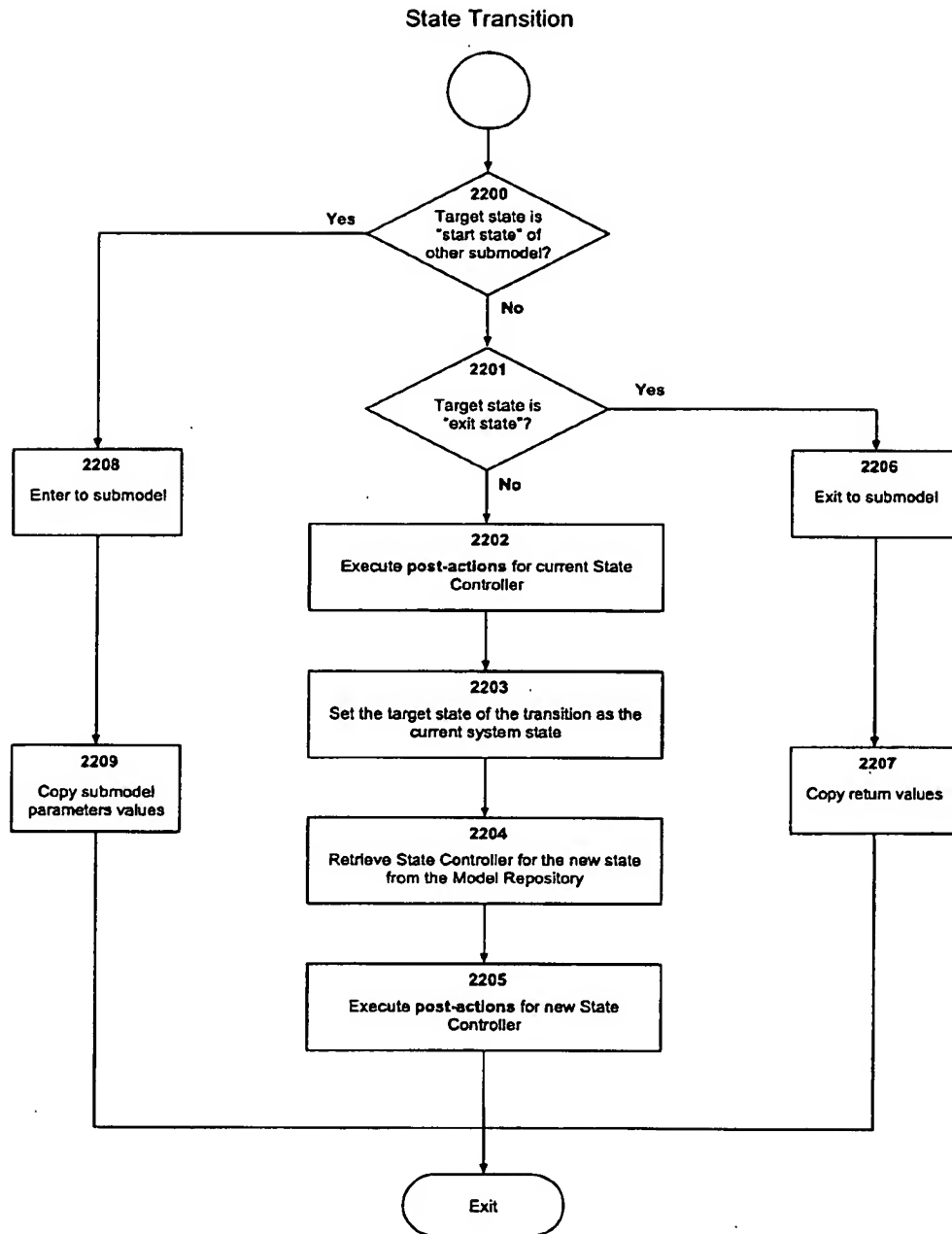


Figure 34

38/41

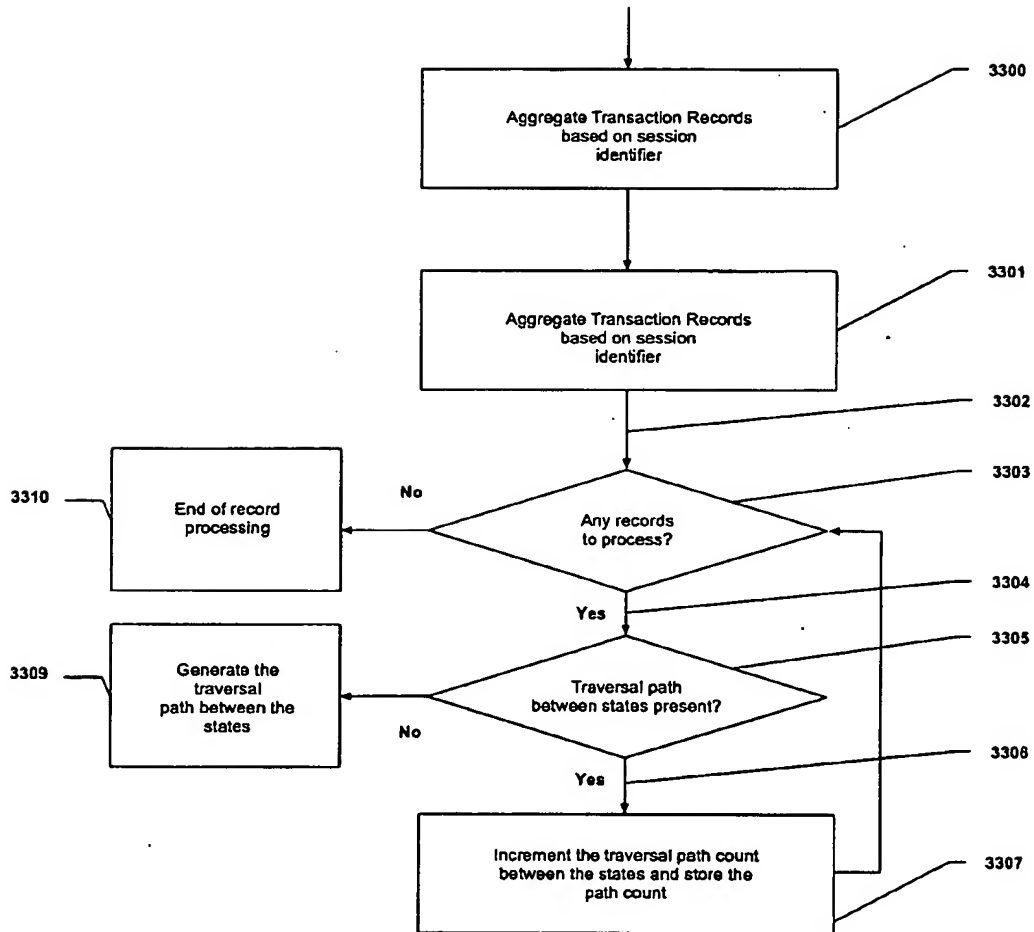


Figure 38

40/41

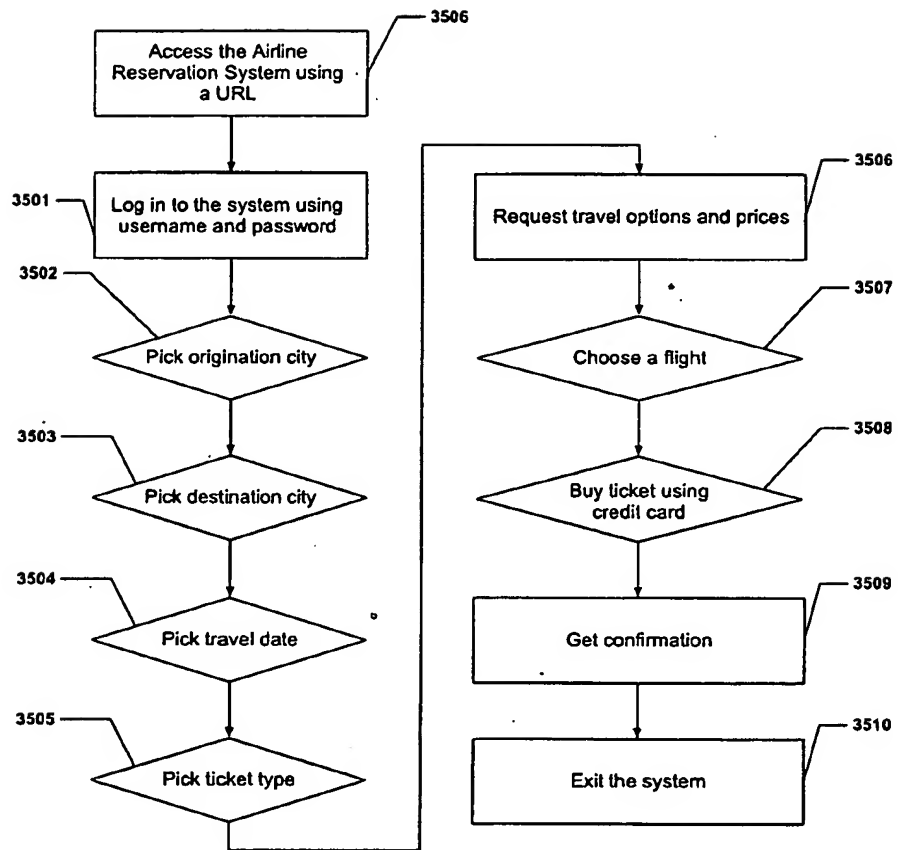


Figure 40